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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/680,930

Applicant(s)

CHATTERJEE ET AL.

Examiner

Kevin M. Nguyen

Art Unit

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In response to the applicant's argument, filed 8/3/2007, with respect to the rejection(s) of claim(s) 1-49 under the statutory basis for the previous rejection have been fully considered and are NOT persuasive. Therefore, the rejection has been maintained.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Regarding claims 48 and 49, the word "means" is preceded by the word(s) "accessing, outputting, and controlling" in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 18, 35-39, 48 and 49** are rejected under 35 U.S.C. 102(b) as being anticipated by Singhal et al (US 5,488,385, hereinafter Singhal).

6. As to **claim 1**, Singhal discloses a method comprising:

identifying, by a software application (a software executed by a processor 12) in a computer system, display characteristics of multiple display devices (CRT and LCD), col. 5, lines 47-60; and

generating, by the software application in the computer system, simultaneous independent views of an electronic document (at least a file in a notebook computer) on the display devices by separately rendering the electronic document to each of display devices based on the identified display characteristics (desired resolution and color depth) of the device as discussed in col. 5, lines 40-60, and col. 6, lines 30-40.

7. The limitation of **claim 18** is similar to those of claim 1, though in a software product tangibly embodied in a machine-readable medium (a memory 56) form, therefore the rejection of claim 18, will be treated using the same rationale as claim 1

8. As to **claim 35**, Singhal discloses a system comprising: one or more peripheral display devices (CRT and LCD); and a data processing system comprising a primary device and a software application (a software executed by a processor 12) that generates simultaneous independent views of an electronic document (at least a file in the notebook computer) on the display devices based display characteristics (desired resolution and color depth) of the display device as identified by the software application, fig. 4, col. 5, lines 40-60, and col. 6, lines 30-40.

As to claim 36, Singhal teaches display buffers (the frame buffer 58) associated with the display device (CRT and LCD), fig. 4, col. 6, lines 50-60, wherein the software application (a software executed by CPU 12) comprises a display engine (a video

controller 50) that concurrently (simultaneously) renders the electronic document multiple times (multiple CRT(s) and multiple LCD(s), fig. 4) , col. 5, lines 41-60.

As to claim 37, Singhal teaches wherein the software application identifies the display devices (CRT, LCD) that are currently interfaced with the data processing system (a notebook computer) by the registers that establish the display mode, text mode and graphic mode by interface hardware (the input device), col. 5, lines 34-40.

Claim 38 shares the same limitations as those of claim 8 and therefore the rationale for rejection will be the same.

As to claim 39, Singhal discloses a 640x480 pixel resolution LCD panel 52 as a primary display device less than display capability than a high-resolution CRT display 54 as a secondary display device, col. 5, lines 47-51.

9. The limitation of **claim 48** is similar to those of claim 35, though in a software-application-means (a software application executed by the processor 12), therefore the rejection of claim 18, will be treated using the same rationale as claim 35, col. 5, lines 51-60, and col. 6, lines 2-5.

10. As to claim 49, Singhal teaches soft-application-means for controlling the outputting software-application means based on user configuration, col. 5, lines 51-60.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 2-8, 11, 19-25, 28, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal in view of Terayama et al (US 7,010,551, hereinafter Terayama).

As to claim 2, Singhal discloses all of the claimed limitation of claim 1, except wherein generating the independent views comprises separately rendering the electronic document according to presentation tags associated with content in the electronic document, the presentation tags indicating device-dependent rendering to be applied to the content based upon assigned device types of the display devices. As modified by Terayama reference, figure 3A of Terayama teaches a plurality of pieces of data displayable on a display unit and with a start and an end of each piece of data indicated by respective identifiers in the form of tags, data displayable on a limited-capability device, col. 17, line 67 through col. 18, line 3.

13. As to claim 3, Singhal teaches a display subsystem providing for the simultaneous redisplay of independent images, col. 13, lines 50-51.

14. As to claim 4, Terayama teaches the tag AA associated with the content (window 200) based on user input, fig. 16.

15. As to claim 5, Singhal teaches two video images are independently, separately displayed on two CRT and LCD.

16. As to claim 6, Terayama teaches the window 200 comprising an annotation (a text is inputted by a keyboard), fig. 16.

17. As to claim 7, Singhal teaches identifying the display characteristic comprise periodically obtaining display characteristics (identifying and redisplaying display characteristics, col. 13, lines 50-51).

18. As to claim 8, Singhal teaches wherein obtaining the display characteristics comprises obtaining screen resolution and color depth information of the multiple display devices, as discussed in col. 6, lines 2-5

19. As to claim 11, Singhal teaches the resolution of the image of CRT is different than the resolution of the image of LCD.

20. Claim 19 shares the same limitations as those of claim 2 and therefore the rationale for rejection will be the same.

21. Claim 20 shares the same limitations as those of claim 3 and therefore the rationale for rejection will be the same.

22. Claim 21 shares the same limitations as those of claim 4 and therefore the rationale for rejection will be the same.

23. Claim 22 shares the same limitations as those of claim 5 and therefore the rationale for rejection will be the same.

24. Claim 23 shares the same limitations as those of claim 6 and therefore the rationale for rejection will be the same.

25. Claim 24 shares the same limitations as those of claim 7 and therefore the rationale for rejection will be the same.

26. Claim 25 shares the same limitations as those of claim 8 and therefore the rationale for rejection will be the same.

27. Claim 28 shares the same limitations as those of claim 11 and therefore the rationale for rejection will be the same.

28. Claim 41 shares the same limitations as those of claim 2 and therefore the rationale for rejection will be the same.

29. Claim 42 shares the same limitations as those of claim 5 and therefore the rationale for rejection will be the same.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Terayama into Singhal to create the claimed invention. It would have been obvious to modify Singhal to have the plurality of pieces of data displayable on the display unit and with a start and an end of each piece of data indicated by respective identifiers in the form of tags, data displayable on the limited-capability device as taught by Terayama because this would improve the diversified images being displayed on different types of a plurality of display devices without reorganizing the extracted data in a size and format (see Terayama, col. 1, lines 41-56).

30. Claims 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal in view of Okuley et al (US 6,956,542, hereinafter Okuley).

31. As to claim 46, Singhal discloses a system comprising: one or more peripheral display devices (CRT and LCD); and a data processing system comprising a primary display device and a software application (a software executed by processor 12) that generates simultaneous independent views of an electronic document (at least a file in the notebook computer) on the display devices based on display characteristics (desired resolution and color depth) of the display device as identified by the software

application, wherein a primary view from the independent views includes rendered content not included in a secondary view from the independent views, and the primary view includes at least a portion of a user interface that provides control over the independent views on the display devices both together and separately, and the secondary view forms part of a presentation in figure 3a, col. 5, lines 14-18, and lines 40-60, and col. 6, lines 2-5. Singhal fails to teach a primary display device and a secondary display device. As modified by Okuley reference, Okuley teaches a primary display device 305, and secondary display device 350, fig. 3.

32. As to claim 47, Singhal teaches display buffers (the frame buffer 58) including two independent images CRT and LCD, fig. 4, col. 6, lines 50-60. The software application (a software executed by CPU 12), a display engine (video controller 50), col. 5, lines 41-60.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Singhal to have a primary display device 305, and secondary display device 350 as taught by Okuley, because this would provide PC users may enjoy the benefits of both worlds with a single device, col. 5, lines 34-35 of Okuley.

33. Claims 9, 10, 12-15, 26, 27, 29, 31, 32 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal in view of Shih (US 7,102,591).

As to claim 9, Singhal discloses a 640x480 pixel resolution LCD panel 52 as a primary display device less than display capability than a high-resolution CRT display 54 as a secondary display device, col. 5, lines 47-51.

As to claim 10, Singhal teaches all of the claimed limitation except for a primary display comprising a monochrome display device that present the first view without color, and a second display device comprising a full-color display device that presents the second view with full color. As modified by Shih reference, Shih teaches a system comprising a PDA 10 as a primary display device and a TV as a second display device. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the PDA display device being displayed without color, and the TV being displayed image with full color, col. 2, lines 37-41.

As to claim 12, Singhal teaches a notebook computer inherent an input device as a user interface that controls over the video information as the electronic document being displayed independently, both together and separately, col. 4, lines 59.

As to claim 13, Shih teaches a page changing output (step 609) as the projector being utilized during presentation.

As to claim 14, Singhal discloses three display devices, fig. 1

34. As to claim 15, Singhal second video information view includes additional rendered content not included in the first video information view (two video information views are displayed independently, both together and separately, abstract).

35. Claim 26 shares the same limitations as those of claim 9 and therefore the rationale for rejection will be the same.

36. Claim 27 shares the same limitations as those of claim 10 and therefore the rationale for rejection will be the same.

37. Claim 29 shares the same limitations as those of claim 12 and therefore the rationale for rejection will be the same.

38. Claim 31 shares the same limitations as those of claim 14 and therefore the rationale for rejection will be the same.

39. Claim 32 shares the same limitations as those of claim 15 and therefore the rationale for rejection will be the same.

40. Claim 40 shares the same limitations as those of claim 10 and therefore the rationale for rejection will be the same.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Singhal to have the PDA as taught by Shih. The motivation for doing so would apply a variety of electronic display devices, and provide unlimited function of the build-in CPU and related software is practical for displaying not only for a still image, but also for displaying a moving picture, col. 1, lines 33-38 of Shih.

41. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal in view of Terayama as applied to claim 35 above, and further in view of Tafoya et al (US 5,917,480, hereinafter Tafoya).

The combination of Singhal and Terayama teaches all of the claimed limitation, except for slide show presentation. As modified by Tafoya reference, Tafoya teaches multiple display devices including a slide show presentation 72, fig. 2A, col. 10, lines 40-56. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Singhal and Terayama to have the slide-show mode as

taught by Tafoya, because this would provide an easy-to-use user interface, col. 10, lines 51-52 of Tofoya.

42. Claim 44-45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal in view of Terayama in view of Tafoya et al as applied to claim 35 above, and further in view of Meyn et al (US 5,859,623, hereinafter Meyn).

The combination of Singhal, Terayama, and Tofoya teaches all of the claimed limitation, except wherein the electronic document comprises an electronic in a predetermined final format that defines an appearance of the electronic document, and wherein the predetermined final format comprises PDF. As modified by Meyn reference, Meyn teaches an electronic document comprising PDF as discussed in col. 10, lines 49-67.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Singhal, Terayama, and Tofoya to have the predetermined final format comprises PDF as taught by Meyn because this would improve the quality of the image being displayed without requiring the separate computer and cables (see Meyn, col. 1, lines 53-63).

43. Claims 13, 16, 17, 30, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singhal in view of Shih as applied to claims 1 and 18 above, and further in view of Meyn et al (US 5,859,623, hereinafter Meyn).

As to claims 13, 16 and 17, the combination of Singhal and Shih teaches all of the claimed limitation, except wherein the electronic document comprises an electronic in a predetermined final format that defines an appearance of the electronic document,

and wherein the predetermined final format comprises PDF. As modified by Meyn reference, Meyn teaches an electronic document comprising PDF as discussed in col. 10, lines 49-67.

44. Claim 30 shares the same limitations as those of claim 13 and therefore the rationale for rejection will be the same.

45. Claim 33 shares the same limitations as those of claim 16 and therefore the rationale for rejection will be the same.

46. Claim 34 shares the same limitations as those of claim 17 and therefore the rationale for rejection will be the same.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Singhal and Shih to have the predetermined final format comprises PDF as taught by Meyn because this would improve the quality of the image being displayed without requiring the separate computer and cables (see Meyn, col. 1, lines 53-63).

Response to Arguments

47. Applicant's arguments filed 8/3/2007 have been fully considered but they are not persuasive.

In response to applicant's argument with respect to claims 48 and 49 concerning "means plus function," as required by 35 U.S.C. 112, sixth paragraph, found on page 11. This argument is not persuasive because applicant's arguments found in this response are NOT seen to be consistent with the claims 48 and 49 that cited corresponding element to be impossible for determining the equivalents.

Applicant argues with respect to claim 1 recited “identifying by a software application” found on page 12. These are not found persuasive. Singhal discloses a data programmed by a CPU 12, col. 5, lines 51-52, and software executed by the processor 12, col. 5, line 56. Singhal teaches the use of CPU 12 to instruct or identify displaying the LCD and CRT. It is realized by using hardware, CPU 12, and by using the software application on the computer is logically equivalent. Moreover, those skilled in the computer art would recognize that such an implementation can be expressed in terms of either computer program (software application) or a CPU 12 (hardware) implementation, the two being functional equivalent of one another.

Applicant argues with respect to claim 1 recited “separately rendering the electronic document” found to page 12. These are not found persuasive. Singhal discloses the frame data for the separate display devices 52 and 54, col. 6, lines 36-37, and lines 56-60. The term “render” is to convert graphics from a file into visual form, as on a video display. Thus, Singhal already discloses rendering the video data to display on the LCD 52 and CRT 54. Singhal teaches a notebook computer, col. 4, line 59, which is used to store any files in the memory, which implies an electronic document.

Applicant argues with respect to claim 1 recited “based on the identified display characteristics” found on page 12. These are not found persuasive. Singhal discloses the desired resolution and the color depth for the LCD 52 and CRT 54, col. 6, lines 4-5.

The applicant’s argument of claims 18, 35, 46 and 48 are the same as those of claim 1 found on page 17, and therefore the response of claims 18, 35, 46 and 48 will be addressed using the same rebuttal.

With respect to dependent claims 36-39 found on page 18, this is not found persuasive. Singhal discloses this limitation in col. 6, lines 6-19.

With respect to claim 49 found on page 19, this is not found persuasive. Singhal discloses this limitation in col. 6, lines 2-5.

With respect to claims 2-8, 11, 19-25, 28, 41 and 42 found on pages 19-20, these are not found persuasive. Figure 3A of Terayama teaches the deficiencies of Singhal in which a plurality of pieces of data displayable on a display unit and with a start and an end of each piece of data indicated by respective identifiers in the form of tags, data displayable on a limited-capability device, col. 17, line 67 through col. 18, line 3.

The applicant's argument of claims 46 and 47 are the same as those of claim 1 found on page 20, and therefore the response of claims 46 and 47 will be addressed using the same rebuttal.

With respect to dependent claims 9, 10, 12-15, 26, 27, 29, 31, 32, 40, 44, 45, 13, 16, 17, 30, 33 and 34. Specially, claim 12 recited "a user interface" found on page 21. These are not found persuasive. Singhal teaches a notebook computer, col. 4, line 59, which includes a keyboard and a pointing device, which implies a user interface.

For these reasons, the rejections of claims 1-49 are maintained.

Conclusion

48. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 2629

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin M. Nguyen
Patent Examiner
Art Unit 2629

KMN
October 11, 2007



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNICAL CENTER 2600